

MEETING OF OCTOBER 14, 1909.

The 233d meeting of the Society was delightfully entertained by Mr. Lawford at his residence, 718 N. Howard street, Baltimore, Md., on the evening of October 14, 1909, and there were present Messrs. Barber, Burgess, Busck, Crawford, Dyar, Heidemann, Howard, Knab, Lawford, Poponoe, Schwarz, Uhler, and Viereck, members, and Messrs. A. H. Jennings and T. H. Jones, visitors.

The first paper of the evening was by Mr. Busck, entitled "Notes on Microlepidoptera," and was read by title.

NEW MICROLEPIDOPTERA FROM NEW MEXICO AND CALIFORNIA AND A SYNOPTIC TABLE OF THE NORTH AMERICAN SPECIES OF HELIODINES STANTON.

BY AUGUST BUSCK.

Gnorimoschema princeps, new species.

Labial palpi, face, and head light whitish ochreous. Antennæ with dark brown annulations. Thorax whitish ochreous. Fore wings whitish ochreous with very striking black longitudinal heavy streak from base of costa to the middle of the cell, immediately continued in a similar black streak beginning just above and touching the end of the first and reaching to the end of the cell. Both streaks are slightly concave on their upper sides. No other ornamentation. Cilia ochreous; white. Hind wings light, whitish fuscous. Venation typical.

Alar expanse, 17 mm.

Habitat—California. From coll. Beutenmüller.

Type—No. 12682, U. S. National Museum.

A striking species reminding in its ornamentation somewhat of *Plutella interrupta* Walsingham.

Gnorimoschema atriplex, new species.

Second joint of labial palpi light ochreous, sprinkled with a few black scales externally; brush large, spreading; terminal joint short, thickened with scales, ochreous, mottled with black. Antennæ ochreous, annulated with black. Face, head, and thorax light ochreous. Fore wings light ochreous, suffused with somewhat deeper ochreous and sparsely sprinkled with black scales. The black dusting is irregular, densest along the costal edge and on the tip of the wing and forming three or four small blackish dots on the middle of the wing.

Hind wings ochreous white. Abdomen ochreous. Legs ochreous, sprinkled with black scales.

Alar expanse, 15 mm.

Food plant: *Atriplex canescens*.

Habitat—San Bernardino County, California. May. A. Koebele coll. and bred.

Type—No. 12700, U. S. National Museum.

Venation and oral parts typical.

Gnorimoschema faustella, new species.

Labial palpi dark brown; inner side whitish; tuft slightly tipped with white; terminal joint with an indistinct white annulation near base. Face whitish. Head and thorax dark brown. Fore wings dark brown with costal apical and basal part of dorsal edge blackish and with dark brown cilia; three blackish-brown obscure round spots, one on the fold, one in the middle of the cell and one at the end of the cell. Hind wings dark fuscous. Abdomen above dark brown with tip of each joint ochreous; underside light ochreous brown. Legs blackish brown with narrow ochreous annulations on the tarsal joints.

Alar expanse, 16 mm.

Habitat—Beulah, New Mexico, 8,000 feet altitude. July. T. D. A. Cockerell coll.

Type—No. 12699, U. S. National Museum.

Venation and oral characters typical; nearest to *Gnorimoschema pedmoutella* Chambers.

Gnorimoschema chiquitella, new species.

Labial palpi white, second joint barred externally with black, terminal joint with a black annulation before the tip. Antennæ white, annulated with black. Face and head grayish white. Thorax white, dusted with black. Fore wings white, evenly and freely dusted with black atoms, each of the long scales, characteristic of the genus, being white at base and the extreme tip, with a black band across the middle. Hind wings light silvery fuscous, cilia ochreous white. Abdomen dark gray above; anal tuft and underside whitish. Legs white, freely dusted with black; tarsi with black annulations.

Alar expanse, 8 mm.

Habitat—Mesilla, New Mexico. C. N. Ainslie, coll.

Type—No. 12683, U. S. National Museum.

The smallest described American species of this genus; in coloration very much like *Gnorimoschema tetradymiscella* Busck, though not so strongly suffused with black and less than half the size. Venation and oral characters typical of the genus.

The species described by me as *Gnorimoschema graphicella* (Proc. Wash. Ent. Soc., ix, p. 86, 1908) is found under more careful study to have been placed generically on its superficial resemblance to this genus. It should be known as *Recurvaria graphicella*.

***Gelechia depuratella*, new species.**

Second joints of labial palpi ochreous white, with a few brown scales on the exterior side; brush even, furrowed, rather short; terminal joint white, sprinkled with dark brown scales. Antennae white, suffused with blackish brown, towards the tip annulated with brown; first joint long, blackish brown with white tip. Head, thorax, and patagia ochreous white. Fore wings ochreous white suffused with light yellow, especially on apical half; on the middle of the cell is a large oblique blackish spot, nearest costa at its basal end and followed by a small blackish dot at the end of the cell; just above it the costal edge is sprinkled with black and at apical third is a small blackish costal spot; the extreme tip of the wing is sprinkled with black. Cilia white. Hind wings whitish fuscous, darkest towards the tip and with a few black scales in the apical cilia. Abdomen ochreous white. Legs white, sparsely sprinkled with brown scales; anterior and middle tarsi annulated with blackish brown.

Alar expanse, 17 mm.

Habitat—Mesilla, New Mexico. C. N. Ainslie, coll.

Type—No. 12788, U. S. National Museum.

A very striking species, reminding in coloration of *Gnorimoschema collinusella* Chambers.

***Gelechia dromicella*, new species.**

Second joint of labial palpi light ochreous, with a brown central cross-band, including the brush deep black; brush rather long, nearly even-furrowed; terminal joint deep black, slightly sprinkled with ochreous. Tongue long and robust, light ochreous. Face and head iridescent ochreous fuscous. Thorax and patagia light ochreous brown. Fore wings with the fuscous white ground color obscured by evenly overlaid dark fuscous scales; extreme base of costa black; through the center of the wing from base to apical third is a black streak, interrupted on the middle of the cell by a pure white spot. At apical third is a transverse, poorly defined, pure white fascia, hardly reaching either margin; outside of this fascia the apical part of the wing is strongly suffused with blackish fuscous. Cilia whitish fuscous. Hind wings iridescent whitish fuscous; cilia light ochreous fuscous. Abdomen above light ochreous fuscous, strongly iridescent; underside light dull ochreous with two marginal dark-

brown streaks. Legs blackish fuscous sprinkled with ochreous; tarsi with narrow ochreous annulations.

Alar expanse, 15 mm.

Habitat—Placer County, California, September. A. Koebele, coll.

Type—No. 12792, U. S. National Museum.

Nearest to *Gelechia trophella* Busck in pattern and coloration, yet very distinct from this species and easily recognized by the peculiar black-marked palpi.

Gelechia fulmenella, new species.

Labial palpi dirty white, mottled with fuscous, especially on the apical joint; second joint thickened but nearly smooth; brush short, compressed, not furrowed; terminal joint as long as second. Face light iridescent fuscous. Head and thorax blackish brown. Fore wings blackish brown with bold oblique white fascia across the middle of the wing and with a zigzag white fascia across the apical part of the wing; the central fascia is nearest the base on the costal edge and its edges are uneven, especially the outer one; the apical fascia begins as a broad white costal spot at apical fifth, which is connected with a broad oblique dorsal spot by an outwardly oblique narrower white streak. A few white scales around the apical edge. Cilia brown. Hind wings light fuscous. Abdomen dark fuscous. Legs blackish with narrow white tarsal annulations.

Alar expanse, 15 mm.

Habitat—Argus Mountains, California. April. A. Koebele, coll.

Type—No. 12697, U. S. National Museum.

A very distinct species nearest *Gelechia lugubrella* Fabricius, differing in the form and position of the fasciae. Hind wings with 3 and 4 short-stalked; 6 and 7 approximate at base, nearly parallel in their course.

Gelechia periculella, new species.

Labial palpi purplish black mottled with ochreous especially on the inner side of second joint; brush short, even, spreading, but hardly furrowed; terminal joint more than half as long as second. Face iridescent fuscous. Head and thorax brownish black. Fore wings brownish black with a purple sheen and with a few scattered white scales. At apical fourth is a white zigzag fascia line, an incomplete W. Cilia whitish fuscous. Hind wings dark fuscous with lighter cilia. Legs purplish black; tarsi with narrow ochreous annulations.

Alar expanse, 22 mm.

Habitat—Humboldt, California. July. H. S. Barber, coll.

Type—No. 12698, U. S. National Museum.

A large species of the black and white group nearest *continella* Zeller.

***Gelechia nanodella*, new species.**

Labial palpi light ochreous, terminal joint liberally sprinkled with black; brush on second joint well developed, narrowly furrowed; terminal joint nearly as long as second. Antennæ ochreous fuscous with black annulations. Face and head light ochreous; thorax darker ochreous sprinkled with black. Fore wings with the whitish ochreous ground-color partly obscured by black, brown and dark fuscous scales: the pattern is obscure and ill defined, but in perfect specimens can be made out two oblique dark streaks on the basal third of the wing in the cell and a blackish costal spot just before apical third, preceding a light ochreous costal spot, which is the beginning and most apparent part of an indistinct, narrow, outwardly angulated ochreous fascia; this fascia is vaguely limited basally by a broad dark shadow of the same angulated form. Cilia ochreous, sprinkled with fuscous. Hind wings light ochreous fuscous. Abdomen ochreous fuscous with lighter anal tuft. Legs ochreous, sprinkled with black and with tarsal annulations.

Alar expanse, 14 mm.

Habitat—San Diego, California. May. L. E. Ricksecker, coll.

Type—No. 12684, U. S. National Museum.

Received from Mr. Wm. D. Kearfott, in whose collection are additional specimens.

A typical *Gelechia* of obscure appearance, reminding somewhat of *Gnorimoschema larvernella* Chambers. Hind wings with veins 6 and 7 stalked; 3 and 4 connate or barely separate.

***Gelechia malindella*, new species.**

Labial palpi light ochreous, sprinkled with black; second joint with short, even, slightly furrowed brush; terminal joint nearly as long as second. Antennæ ochreous with narrow black annulations. Face ochreous, iridescent. Head and thorax light ochreous, slightly sprinkled with black. Fore wings light, whitish ochreous, evenly sprinkled with single black atoms; three small black costal spots, one near base, one before the middle, and one before the apical third of the wing; a slightly indicated series of small black terminal dots around apex. Cilia light ochreous. Hind wings rather dark fuscous. Abdomen ochreous fuscous. Legs ochreous, dusted with black; tarsi annulated with black.

Alar expanse, 16 to 17 mm.

Habitat—Mesilla, New Mexico. C. N. Ainslie, coll.

Type—No. 12685, U. S. National Museum.

A very distinct species nearest and quite similar to *Gelechia lindencella* Busck, which, however, is a darker species with larger costal black spots. Both species have veins 3 and 4 slightly separate and 6 and 7 connate in the hind wings.

***Gelechia inaequalis*, new species.**

Second joint of labial palpi with well developed, furrowed brush: ochreous white, tipped with black and brick-red scales; terminal joint much shorter than second, blackish with an ochreous red annulation around the middle. Face light ochreous. Head and thorax dark reddish ochreous, each scale tipped with black; on the anterior part of the thorax are two small ill-defined triangular black spots. Basal third of the fore wings light rosy ochreous, mottled with yellow and black; this part is sharply edged by a large, slightly oblique, velvety black costal streak, which reaches beyond the fold and is continued by reddish brown scales to the dorsal edge. Apical two-thirds of the wing has the same ground-color as the basal part, but is strongly overlaid with bluish black so as to appear much darker; on the middle of the wing is a small yellow dot, preceded by black scales and at the end of the cell is a larger yellow spot with black scales above and below; at the apical third is a small deep black costal spot, followed by rosy. Cilia reddish, with ochreous tips and sprinkled with black atoms. Hind wings light ochreous fuscous. Abdomen and legs light ochreous; tarsal joints annulated with black.

Alar expanse, 13 mm.

Habitat—Mesilla, New Mexico. C. N. Ainslie, coll.

Type—No. 12686, U. S. National Museum.

This species also occurs in Mexico, and Mexican specimens are in the U. S. National Museum.

***Gelechia leucanieella*, new species.**

Second joint of labial palpi orange yellow with well-developed furrowed tuft; terminal joint yellow, sprinkled with black. Antennae black with very narrow yellow annulations. Face, head and thorax unmottled light orange yellow; patagia black. Ground-color of the fore wings appears to the naked eye bluish black; under a lens it is seen that only the tips of the scales are black, while the bases are ochreous and the middle part bluish; at apical third is a costal yellow spot which is faintly connected with an opposite dorsal yellow spot by a slight transverse fascia; on the cell near the base are two small yellow dashes followed by black scales. Hind wings dark fuscous. Abdomen above yellow on the first three joints and with light ochreous anal

tuft, otherwise dark fuscous. Legs ochreous, strongly mottled with black and with black tarsal annulations.

Alar expanse, 12 mm.

Habitat—San Diego, California. May. L. E. Ricksecker, coll.

Type—No. 12687, U. S. National Museum.

Received from Mr. W. D. Kearfott, who has additional specimens.

A pretty species, recognizable by the yellow head and thorax; it will find its place next to *G. abdominella* Busck; the peculiar coloration of the abdomen found in the type specimens of the latter species is not present in many additional specimens since obtained and must have been due to some accident, probably produced by the chemicals in the killing bottle. *Gelechia leucanicella* has veins 6 and 7 in the hind wings stalked, 3 and 4 connate, and vein 6 in the fore wings out of the base of 7.

Gelechia paraplutella, new species.

Labial palpi creamy white; extreme base of second joint and the terminal joint sprinkled with black scales; brush well developed, furrowed. Antennæ deep black. Face and head creamy white. Thorax light clay-yellow, patagina black. Fore wings blackish fuscous with entire dorsal part below the fold light reddish yellow; in faded specimens this color becomes yellowish white. Hind wings light fuscous. Abdomen dark fuscous with light anal tuft. Legs ochreous on their inner sides, heavily barred with black externally; tarsi with broad black annulations.

Alar expanse, 11 to 12 mm.

Habitat—San Diego, Cal. May and July. L. E. Ricksecker, coll.; Los Angeles, California, June, Dyar and Caudell, coll.

Type—No. 12688, U. S. National Museum.

A very distinctly marked species near the preceding. Vein 6 in the fore wing is out of the base of 7; 6 and 7 of the hind wings are approximate, and 3 and 4 connate.

Gelechia sedulitella, new species.

Labial palpi blackish brown, mottled with white on their inner sides; tuft on second joint short, furrowed; terminal joint as long as second. Face, head, and thorax blackish brown with bluish iridescence, especially on the face. Fore wings dark brown, mottled with lighter brown, black and white; basal third unmottled, rather darker than the rest of the wing and limited by a narrow indistinct blackish oblique streak across the wing. A series of five tufts of raised scales parallel with

the dorsal edge; beyond the last of these tufts, which contains some white scales, is a thin oblique pure white line from the tornus towards apex. Apical part and cilia rather freely dusted with white. The ornamentation, especially the tufts and the white line, is easily destroyed by rubbing, and flown specimens are determined with difficulty. Hind wings light bluish fuscous, darker towards the edges and with dark brown cilia. Abdomen blackish brown above; underside ochreous white, mottled with brown. Legs blackish brown with narrow ochreous tarsal annulations.

Alar expanse, 13 to 14 mm.

Habitat—Placer County, California. August and September. A. Koebele, coll.

Type—No. 12696, U. S. National Museum.

Described from six apparently bred specimens of Mr Koebele's careful mounting. Hind wings with veins 3 and 4 slightly separated; 6 and 7 connate.

Gelechia lophosella, new species.

Tuft on second joint of labial palpi rather short, compressed, furrowed; light ochreous, strongly sprinkled with black; tip of tuft black; terminal joint long, heavily scaled, compressed; black, sprinkled with ochreous and with an ill-defined ochreous annulation at the base. Face and head light ochreous, sprinkled with dark fuscous. Thorax blackish fuscous; fore wings blackish fuscous, with poorly defined ornamentation; near the base is a small tuft of brown and black scales; on the middle of the cell is a similar tuft of raised scales; and obliquely below on the fold is a somewhat larger tuft, edged with light brown; at the end of the cell are two small, nearly confluent tufts of black scales, surrounded by light brown; at apical fourth is a conspicuous white costal spot and the edge of the wing has a few scattered white scales before the cilia. Hind wings rather dark fuscous. Abdomen dark fuscous. Legs ochreous, broadly barred and annulated with black.

Alar expanse, 12 mm.

Habitat—San Diego, California. May. L. E. Ricksecker, coll.

Type—No. 12689, U. S. National Museum.

Received from Mr. W. D. Kearfott, in whose collection are additional specimens. Fore wings with 6 separate; hind wings with 6 and 7 short-stalked; 3 and 4 connate. An obscurely marked species, recognizable by its raised scales.

Heliodines albaciliella, new species.

Second joint of labial palpi and cheeks below the eyes white; terminal joint black, sprinkled with white; antennae purplish black, lighter brown at the tips. Face, head, and thorax metallic greenish

black; collar tipped with light ochreous. Fore wings bright reddish orange, with five nearly equidistant metallic blue costal spots, broadly edged with deep black basally, and with three similar blue metallic dorsal spots, also edged with black basally opposite the intervals between the first four costal spots. Extreme base of costa and a narrow edge of dorsum to the first dorsal spot black; a narrow edge around apex from the last costal to the last dorsal spot black. Cilia dark gray. The first and second costal spots do not touch the edge. Hind wings purplish black with ochreous white cilia contrasting markedly with the dark wing. Entire underside of the body and the legs strongly metallic coppery green.

Alar expanse, 15 mm.

Habitat—Cimarron, New Mexico. September. C. N. Ainslie, coll.

Type—No. 12690, U. S. National Museum.

A remarkably fine species, much larger than any of the described American species of the genus, nearest to *extrancella* Walsingham, but with additional metallic costal spots, without the white costal and dorsal spots and at once distinguished by the light color of the cilia of the hind wings.

The described American species of this genus may be separated by the following synoptic table:

NORTH AMERICAN SPECIES OF HELIODINES.

- | | |
|--|----------------------------|
| 1. Fore wings with snow-white costal spot before cilia | <i>extrancella</i> Wlsm. |
| Fore wings without any white markings..... | 2. |
| 2. Fore wings with a complete transverse fascia..... | <i>metallicella</i> Busek. |
| Fore wings without fascia..... | 3. |
| 3. Ground-color of fore wings gray with a single costal orange spot..... | <i>unipunctella</i> Wlsm. |
| Ground-color red or orange..... | 4. |
| 4. Basal half of costal edge black..... | <i>sexpunctella</i> Wlsm. |
| Basal half of costa not black..... | 5. |
| 5. Fore wings with six metallic costal spots..... | <i>albaciliella</i> Busek. |
| Fore wings with less than six costal spots..... | 6. |
| 6. Fore wings with two dorsal metallic spots..... | <i>bella</i> Chambers. |
| Fore wings with one dorsal metallic spot..... | <i>tripunctella</i> Wlsm. |

***Bucculatrix sporobolella*, new species.**

Face, pecten, and lower part of the tuft white; upper part of tuft dark gray with a few white hairs. Thorax white mottled with fuscous. The white ground-color of the fore wing nearly obliterated by overlaid ochreous fuscous scaling and with black markings; at basal third is a

very oblique, black costal streak and before apical third is another larger black costal streak, which attenuated reaches to apex and which is partly edged above with white scales; below and between these costal streaks is a longitudinal black streak on the fold, basally wider, and curving abruptly downwards, without, however, reaching the dorsal edge. Entire wing, but more especially the apical part and the base of the cilia, dusted with black atoms. Cilia dark fuscous, with two black crossbars. Abdomen dark fuscous above, underside silvery white. Legs silvery ochreous with narrow black tarsal annulations.

Alar expanse, 8 mm.

Food plant: *Sporobolus auroides*.

Habitat—Cimarron, New Mexico. Collected and bred by C. N. Ainslie.

Type—No. 12691, U. S. National Museum.

A typical *Bucculatrix* of the *pomifoliella* group. Cocoon pure white, slender, pointed spindle-shaped, evenly ribbed. Length 8 mm.

***Bucculatrix koebelella*, new species.**

Face iridescent white. Tuft ochreous fuscous, mixed with white. Thorax ochreous fuscous. Fore wings with the white ground-color largely obscured by ochreous fuscous scaling and blackish ornamentation. A blackish fuscous streak from base along the fold is followed by a short black streak below the middle of the wing; a blackish fuscous oblique streak from basal third of the costa and a black longitudinal spot just before apex. The interval between the fold and the costal black streak is nearly or quite pure white; the rest of the wing evenly suffused with ochreous fuscous. Cilia ochreous, with an indistinct black crossbar. Hind wings light fuscous; cilia ochreous. Abdomen light iridescent fuscous, with ochreous anal tuft. Legs silvery fuscous, with ochreous hairs and indistinct black tarsal annulations.

Alar expanse, 8 mm.

Food plant: *Artemisia californica*.

Habitat—Los Angeles, California. March. A. Koebele, coll.

Type—No. 12692, U. S. National Museum.

Described from a large bred series in the exquisite mounting of Mr. Koebele.

***Bucculatrix albertiella*, new species.**

Face and eye caps white, dotted with dark ochreous. Tuft reddish ochreous. Antennæ white, with dark brown annulations. Thorax white, dotted with dark ochreous. Fore wings ochreous white, overlaid with bright brownish ochreous and evenly dusted with black

atoms. The brownish supercolor is arranged in four poorly defined areas, a basal, two broad oblique costal shades, and an apical with narrow intervals of whitish ochreous. Just above the middle of the dorsal edge and below the fold is a prominent tuft of raised black scales; at the apex are a few black scales. Cilia light golden ochreous with a thin black cross-line. Hind wings iridescent whitish fuscous, with light straw colored cilia. Abdomen light ochreous above; underside silvery. Legs ochreous mottled with black and with black tarsal annulations.

Alar expanse, 8 mm.

Food plant: *Quercus agrifolia*.

Habitat—Alameda, California. May. A. Koebele, collected and bred.

Type—No. 12693, U. S. National Museum.

Cocoon pure white, rather bluntly rounded at the ends, evenly ribbed; length, 6 mm.

Socorypha chrysocomella, Dietz.

Trans. Am. Ent. Soc., xxxi, p. 43, 1905.

This gaily colored little species, which has hitherto been known only from the unique type, was collected in numbers this summer on *Sporobolus auroides* in New Mexico by Mr. C. N. Ainslie, July 23. Mr. Ainslie writes:

I was at my wit's end to get any of them; they came up out of the sod of *Sporobolus* on sunny forenoons and kept going with the most dizzy motion; although there might be a dozen flickering about before me—up the blades and across and down again—it was always the merest accident when I got one; sweeping ruined them and holding the net inverted proved of no avail. The moths then sulked and did not come up. I never had a harder job than taking this series.

By a mistake of the similar names, the writer made (Can. Ent., xxxviii, p. 348, 1906) this species a synonym of *Ethmia albistrigella* Walsingham instead of *chrysurella* Dietz, described as a *Brackenridgia* (*Paraclemensia*). This latter is an *Ethmia* and must sink as a synonym of the earlier *albistrigella* Walsingham. The present species is a very different insect, which may be included in a genus with *mediostriatella* Clemens, as done by Dr. Dietz, though there are some differences in the venation of the two species. The type of the genus has all veins present in the fore wings and all veins present and separate in the hind wings, while the present species has vein 2 in the fore wings obsolete and veins 5 and 6 in the hind wings stalked.

Acrolophus occidens, new species.

Male.—Labial palpi curved, ascending, reaching vertex; first joint as long as second and third together, with evenly rounded brush; second joint also with a brush, continued slightly up over the equally long, smooth third joint. The form of the palpi is intermediate between those described for the genera *Eulepiste* and *Necolophus* Walsingham. The scales of palpi, head, and thorax are brownish fuscous, tipped with white. Antennæ ochreous fuscous. Fore wings grayish ochreous, overlaid with black, brown, and white scales. There is an oblique, ill-defined dark shade, edged with white, from apical fourth of costa to the middle of dorsum, nearly parallel with the terminal edge; on the apical fourth of the wing are four or five small black dots and outside of these the wing is strongly overlaid with white scales. Hind wings dark fuscous; abdomen dark fuscous, with white bands on the upper side. Legs ochreous, mottled with fuscous and with indistinct black tarsal annulations.

Alar expanse, 22 mm.

Habitat—San Diego, California. May. L. E. Ricksecker, coll. Additional specimens are in the collection of Mr. Kearfott.

Type—No. 12694, U. S. National Museum.

This species is very close in size, pattern, and form of the palpi to *Acrolophus* (*Eulepiste*) *kearfotti* Dyar, but is much paler, lacks the costal black spots, and has the clear cut oblique dash of *kearfotti* replaced by the less defined oblique fascia; the abundant white dusting, especially on the apical part, is also lacking in Dr. Dyar's species. All these color differences might, however, be individual in this group, where the color and markings are quite variable, but the claspers of the male genitalia are very different and the two species are undoubtedly amply distinct.

I am unable to retain as distinct the several genera erected on the secondary sexual characters of the various forms of palpi in this group. This view is shared by Lord Walsingham and Mr. Durrant, and will be further elaborated in their forthcoming part of Dr. Godman's *Biologia Centrali-Americana*.

Acrolophus leopardus, new species.

Labial palpi of the same form as in the preceding species; ochreous white, mottled with fuscous, especially exteriorly. Antennæ light fuscous. Face and head white. Thorax ochreous white, sprinkled with fuscous. Patagina fuscous. Fore wings ochreous white, dotted with small blackish brown spots in rather regular transverse rows. Across the outer end of the cell is an interrupted, poorly defined

blackish brown oblique streak, parallel with the terminal edge; on the apical part of the wing the dark spots are larger and arranged in rows between the apical veins. Hind wings dark fuscous. Abdomen dark fuscous. Legs ochreous, tarsi with black annulations.

Alar expanse, 17 to 18 mm.

Habitat—San Diego, California. July. L. E. Ricksecker, coll.

Type—No. 12695, U. S. National Museum.

A small very distinct species nearest to *Acrolophus* (*Necolophus*) *punctatus* Busck, lacking, however, the bluish-black dusting and differing also in the unmottled head and palpi and the spotted wing-pattern.

Acrolophus crescentella Kearfott.

Amydria crescentella Kearfott, Can. Ent., xxxix, p. 9, 1907.

This species is nearest *Acrolophus* (*Eulepiste*) *cressoni* Walsingham.

—Referring to the classification of *Lithocolletis* recently proposed by Miss A. F. Braum, and which he had criticized at a former meeting of this Society, Mr. Busck showed a letter just received from the eminent authority on Microlepidoptera, Mr. Edward Meyrick, of England. Mr. Busck referred to his own views, already published (Proc. Ent. Soc. Wash., xi, 99-102), and was disappointed to find from the present letter that Mr. Meyrick did not agree with them.

The letter was in part read to the Society by Dr. Dyar, as follows:

"My criticism of your argument would be that it is of no effect, because you have based it on an assumption of phylogeny (which may or may not be correct, but certainly is doubtful, and very probably incapable of proof) instead of on an observed structural fact of indisputable phylogenetic importance. In other words, it is proved that the group with the additional vein is older than the typical group; you assume that the flat-larvæ group has arisen from beneath this older group, whereas this is not proved and until you can show the connecting links you have no right to use it in definition. It is now generally admitted that a new type of structure associated with habits, such as those of the flat-larvæ group, may arise by a sudden mutation and need not involve the existence of a prolonged ancestry, showing gradual change and divergence, and therefore this group may in my opinion have

originated above instead of below this older type and anyone holding the contrary view must prove his case.

Your argument about the *Cynodiodicea* is open to the same defect."

Mr. Busck said he prized highly the friendly criticism of an authority like Mr. Meyrick, whose excellent work was the foundation of the modern classification of the Microlepidoptera. He was anxious to have these contrary views, privately communicated, made known, so as to get as fully elucidated as possible the important principles underlying the concrete examples under discussion. He wished to present them without comment at present, except for the statement that he still held the opinions expressed in the above-mentioned paper and hoped shortly to present additional evidence in substantiation of them.

Dr. Howard said that the two types of larvæ found in the genus, the flat and the round, were very distinct, and he thought Mr. Busck's classification to be the more natural one.

Dr. Dyar said that there was always danger in relying upon any single character, however good in general, and he thought that this might apply to the larvæ in this instance.

Mr. Busck, however, pointed out that the division of the genus by the flat and round larvæ was not founded upon a single character, but was marked in all stages, even the adults having a different pattern of coloration, as he had already shown. The venational difference relied upon by Miss Braun and supported by Mr. Meyrick consisted only in the coalescence of veins already stalked, and is simply a character of specialization, without fundamental importance.

Mr. Schwarz assumed the chair and the President read a paper on "Two New *Aradidæ*."